

**CITY OF NEWTON**

**POST-RETIREMENT BENEFITS ANALYSIS  
AS OF JUNE 30, 2007**

**AUGUST 22, 2007**



August 22, 2007

Mr. David C. Wilkinson  
Comptroller  
City of Newton  
Commonwealth Avenue and Walnut St.  
Newton Centre, MA 02159

Dear David:

Enclosed please find our report regarding the indicated post-retirement liabilities as of June 30, 2007 for the City. The liability calculation is in accordance with Governmental Accounting Standards Board Statement 45 (GASB-45).

It has been a pleasure being of service to you again on this project. If after reviewing this report you have any questions please do not hesitate to call.

Sincerely,

A handwritten signature in black ink, reading "Mark J. Sobel".

Mark J. Sobel, FCAS, MAAA  
Managing Principal

A handwritten signature in purple ink, reading "John D. Stiefel".

John D. Stiefel, FSA, MAAA  
Associated Consultant

# CITY OF NEWTON

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# CITY OF NEWTON

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## INTRODUCTION

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Financial Risk Analysts, LLC has been retained by the City of Newton (the City) to provide an actuarial valuation of the City's medical and life insurance post-retirement benefits program as of June 30, 2007. The purpose of this valuation is to calculate the City's GASB-45 liability as of June 30, 2007 for these benefits. The City does not formally need to comply with GASB-45 until the end of the current fiscal year.

Medical and life insurance are the two most common types of other (than pension) post-retirement employee benefits (OPEB) provided by an employer to retirees and their beneficiaries.

GASB-45 requires that public entities begin accruing the expected future costs of OPEB over the expected future employment period of employees, much like they now do for pension benefits. The effective date of GASB-45 is the end of fiscal years beginning on or after December 16, 2006 for public entities with annual revenue of more than \$100 million. The effective date is one year later for public entities with annual revenue between \$10 million and \$100 million and two years later for public entities with annual revenue under \$10 million.

The City presently provides life and health insurance benefits for active and retired employees and their covered dependents. The City has reported to us 2,403 active employees, 478 pre-Medicare retirees, 1,806 Medicare retirees and 171 over age 65 non-Medicare retirees who have elected health insurance.

Health insurance benefits provided to active employees are self insured while health insurance benefits provided to Medicare retirees are fully insured. Life insurance benefits provided by the City are fully insured with Kanawha Insurance Company. For health insurance, active employees and retirees not on Medicare have a choice among the Harvard Plan, Tufts-High Option Plan and Tufts-Low Option Plan. Most retirees on Medicare are in the Tufts Medicare Complement Plan.

## **CITY OF NEWTON**

For life insurance, the only option is a flat \$5,000 benefit which does not reduce at retirement. As required by Massachusetts law, retirees not on Medicare have the same benefit options as active employees.

A detailed description of the City's census, benefit, and premium information is presented on Exhibits 10, 11, and 12.

# CITY OF NEWTON

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## CONDITIONS AND LIMITATIONS

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### *DATA*

Within this report we used data and other information provided to us by the City. This data consisted of the following:

- Census Information - the demographics of the active, pre-Medicare retiree and Medicare retiree population covered for medical and life insurance benefits as of the date of the most recent pension valuation. For active employees, date of hire was also included.
- Benefit Information - a description of the different health and life insurance plans available to participants.
- Funding Information – a description of how the life and health insurance plans are funded including the contributions required from employees and retirees.
- Premium Rates – the premium rates for the various plans and the percentage of each premium rate that the City pays.
- Life Insurance In-Force Information – a summary of the life insurance schedules for actives and retirees and the participant contributions required.
- Requirements for Retirement – the age/service requirements for retirement with an unreduced pension benefit and the amount of benefit reduction for early retirement.
- Probabilities of Retirement – the probability that a general or uniformed employee eligible to retire will actually retire.
- Retirement Election Rates - The percentage of active participants who opt to continue their life and health insurance benefits (and pay the associated premiums) at retirement.

Although the data supplied were reviewed for purposes of reasonability, we have not independently audited or verified this information and we assume it to be accurate and complete.

The results of our analysis will be contingent upon the reliability of the information supplied to us and such reliability is the responsibility of the City. Should the City become aware of any significant discrepancies in the data reported to us, we should be notified of such discrepancies and this report will be amended, if necessary.

## **CITY OF NEWTON**

### ***UNCERTAINTY***

Actuarial projections, by their nature, are estimates of future contingent events, which cannot be known with certainty. The City's ultimate liability for medical and life insurance benefits will be subject to events that have yet to occur such as the future employee attrition rate, retirements, and particularly interest rates and medical cost inflation.

While we believe the results presented in this report are reasonable and reflect the use of accepted actuarial principles and standards of practice it is possible that the actual future OPEB liability of the City will differ, perhaps materially, from what we have projected herein. Nothing in this report should be construed as a warranty or guarantee as to the adequacy of the liability estimates contained herein.

## CITY OF NEWTON

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### **DISTRIBUTION AND USE**

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This report is provided solely for the use of the City of Newton in evaluating its OPEB liability as of June 30, 2007. A copy of this report may also be provided to the City's auditor with the proviso that the report is copied in its entirety and that each party receiving a copy of this report agrees to not distribute the report to any other third party.

We request that the City informs us of distribution of this report to parties other than those referenced above.



## CITY OF NEWTON

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### REQUIRED DISCLOSURES

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#### Required Information as of June 30, 2007

As displayed on Exhibit 1, the following presents a summary of the results of our analysis.

GASB-45 Required Disclosures (\$ millions)		
	Discount Rate	
	<u>4.0%</u>	<u>8.0%</u>
a. Expected Post Retirement Benefit Obligation	\$575.20	\$309.38
b. Actuarial Accrued Liability	\$392.73	\$241.26
c. Plan Assets	\$0.00	\$0.00
d. Unfunded Actuarial Accrued Liability (b)-(c)	\$392.73	\$241.26
e. Service Cost (Normal Cost)	\$10.50	\$4.11
f. Amortization of Unfunded Accrued Liability	\$21.83	\$19.85
g. Annual Required Contribution (ARC) (e)+(f)	\$32.33	\$23.96
h. Unrecognized Net Transition Obligation	\$370.90	\$221.41
i. Expected Benefit Payments	\$12.19	\$12.19
j. Increase in Annual Cost to Fund the Plan (g) - (i)	\$20.14	\$11.77

The following is an explanation of the above:

**Expected Post-Retirement Benefit Obligation (EPBO)**-This is the present value of the future post-retirement life and health insurance benefits for all currently retired employees and active employees eligible for those benefits. For active employees, the EPBO includes the full present value of benefits even though some employees have not yet fully earned or vested in those

## CITY OF NEWTON

benefits. The City needs to be aware of this liability but does not need to disclose or recognize it on any of its financial statements.

**Actuarial Accrued Liability (AAL)** – This is also known as the Accumulated Post-Retirement Benefit Obligation (APBO) or the Transition Obligation. This is that portion of the EPBO that has been accrued to date. For existing retirees and active employees who have fully earned their benefit, the AAL equals the EPBO. Upon implementation of GASB-45, the APBO is the transition obligation (current liability) that must be recognized on the City's balance sheet if the City chooses immediate recognition. Alternatively, the City can choose to amortize the current APBO. GASB-45 permits amortization over a period of from 10 to 30 years.

**Plan Assets** – The amount of assets held in trust to fund the plan (if the plan is funded).

**Unfunded Actuarial Accrued Liability** – The excess of the AAL over the plan assets.

**Service Cost**- Also known as the Normal Cost. This is the portion of the EPBO for active employees attributable to employee service during the year. Based on discussion with the City, we used level annual Service Costs.

**Amortization of Unfunded Accrued Liability** -This is the annual amortization of the AAL (Transition Obligation) if the City chooses to amortize the AAL. If the City chooses to amortize the AAL, the amortization cost should be booked as a current year expense. We used a 30 year period for purposes of amortizing the AAL. This is the maximum period of time allowed under GASB and is the same as the City's pension plan requirement for retirement with an unreduced pension benefit. As with the Service Cost, we used level annual amortization payments.

**Annual Required Contribution (ARC)**-This is the total amount that should be booked as a current year expense. During the initial year of implementation of GASB-45, ARC is equal to the sum of the Normal Cost (Service Cost) and Amortization of Actuarial Accrued Liability (Transition Obligation). GASB-45 recommends, but does not require, that the ARC actually be contributed (funded) each year.

**Unrecognized Net Transition Obligation**-If the City chooses to amortize the APBO, the unrecognized net transition obligation is the remaining (unamortized) part of the APBO. During the

## CITY OF NEWTON

initial year of implementation of GASB-45, the unamortized net transition obligation should be shown on the City's balance sheet, but it need not be recognized.

**Expected Benefit Payments** – This is the amount of OPEB payments the City is expected to make during the upcoming fiscal year.

**Increase in Annual Cost to Fund the Plan** – The excess of the ARC over the Expected Benefit Payments. This represents the increase in current year cost associated with funding vs. not funding the OPEB.

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## ANALYSIS

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### Assumptions

1. **Interest discount rate**-4.0% per year, net of expenses, for an unfunded plan. 8.0% per year, net of expenses, if funded. GASB-45 requires that the selection of an interest discount rate be based on the expected long term rate of return on the (General Fund) assets expected to be available to pay the benefits when due.
2. **Trend**-Trend is used to project the assumed annual increases in medical costs for future years. We used a trend rate of 9.0% for the current year followed by 8.0%, 7.0%, and 6.0% for the next three years, and an ultimate trend rate after 4 years of 5.0% per annum. This trend assumption affects our assessment of current trend levels, which have moderated since last year; so assumed trends in the future could increase/decrease, resulting in a higher/lower liability for the City. We note that a level 1% increase in assumed trend will increase the City's liability by about 20%.
3. **Amortization Period**-Thirty years. This is the maximum period permitted by GASB-45. GASB-45 permits amortization payments to increase at a rate not to exceed projected salary growth. We assumed level amortization payments, which we think are more realistic for budgeting purposes.
4. **Retirement Eligibility**-As prescribed by the terms of the City's Retirement System.
5. **Marital Status**-Active participants are assumed to keep their current marital status upon retirement.
6. **Turnover**-Representative values of assumed annual turnover rates for general and uniformed employees are as follows.

Age Group	General Employees	Uniformed Employees
<20	15.00%	1.50%
20-24	13.13%	1.50%
25-29	10.12%	1.50%
30-34	8.33%	1.46%
35-39	6.78%	1.22%
40-44	5.96%	0.28%
45-49	5.13%	0.03%
50-54	3.23%	0.03%
55-59	2.45%	0.00%
60-64	2.07%	0.00%
65-69	1.94%	0.00%
70-74	1.22%	0.00%
75+	0.00%	0.00%

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7. **Mortality**-Mortality assumptions are used to project the expected number of employees who will be receiving future benefits. For deaths after retirement we used mortality rates based on the RP-2000 Healthy Annuitant Table. For deaths before retirement we used representative mortality rates ranging from 0.04% at age 25 to 0.61% at age 60 for all male employees and 0.02% at age 25 to 0.48% at age 60 for all female employees.
8. **Disability**-Disability assumptions are used to project the number of people who will retire early due to disability. The possibility of disability was accounted for by assuming average retirement ages that were 1 year younger than were observed by the City (see (10) below)
9. **Requirements for Retirement**-The City has informed us it requires attainment of age 65 for general employees to retire with an unreduced pension benefit. For uniformed employees this age is 55. Early retirement is available with twenty years of service with a reduced benefit. Retirement is mandatory at age 70 for general employees and age 65 for uniformed employees.
10. **Age at Retirement**-Representative assumed average retirement ages are shown below. These values are consistent with the requirements for retirement stated above, the input provided by the City and the adjustment for disability retirements (see (8) above).

<u>Age</u>	<u>General Employees</u>	<u>Uniformed Employees</u>
45	63	58
50	63	59
55	64	61
60	66	64
62	67	65
65	69	65
69	72	69
70	72	70

11. **Retirement Election Rates**-The City provided us data for each group showing total retirees and how many retirees have elected to continue post-retirement benefits and pay the associated premiums. That data showed that retirement election rates have been as follows.

### All Employees

Health Insurance	100%
Life Insurance	43%

12. **Plan Changes**-The City has informed us there are no significant changes in eligibility, plan provisions or required contributions for health or life insurance benefits that have been announced to employees for future plan years. We assumed the current benefits will remain in effect for all future years.
13. **Expenses**- We did not make an explicit assumption for expenses because our assumed interest discount rates are net of expenses.

# CITY OF NEWTON

## **Methodology**

The following is a summary of the methodology employed in our analysis.

- 1. Determine current annual subsidy for life and health insurance for the pre-Medicare retirees, Medicare retirees and retirees over age 65 not on Medicare.** We used the most recently available census data, current premiums, participant contribution requirements and age-sex adjustment factors to make these calculations.
- 2. Calculate the EPBO.** This is the present value of future subsidies for life and health insurance for the actives, pre-Medicare retirees, retirees over 65 not on Medicare and Medicare retirees. Separate calculations were required for active general and active uniformed employees.
- 3. Calculate the AAL from the EPBO and the active employee age and service information from the census.**
- 4. Calculate the Normal Cost, Amortization of AAL, ARC (Annual Required Contribution) and Unrecognized Net Transition Obligation.**

# **CITY OF NEWTON**

## **GASB 45 DETERMINATION**

### REQUIRED DISCLOSURES-SUMMARY

(\$ millions)

4.0% Interest

	2007		
	<u>Active</u>	<u>Retired</u>	<u>Total</u>
A. Expected Post-Retirement Benefit Obligation	\$297.85	\$277.35	\$575.20
B. Actuarial Accrued Liability	\$115.38	\$277.35	\$392.73
C. Plan Assets			\$0.00
D. Unfunded Actuarial Accrued Liability			\$392.73
E. Service Cost (Normal Cost)	\$10.50	\$0.00	\$10.50
F. Amortization of unfunded accrued liability	\$6.41	\$15.42	\$21.83
G. Annual Required Contribution (ARC)	\$16.91	\$15.42	\$32.33
H. Unrecognized Net Transition Obligation	\$108.97	\$261.93	\$370.90
I. Expected Benefit (Premium) Payments	n/a	\$12.19	\$12.19
J. Increase in Annual Cost to Fund the Plan			\$20.14

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A-B. Exhibit 2.1

C. Since plan is not funded, current assets = 0.

D. B - C

E-H. Exhibit 2.1

I. These are the City's share of the annual retiree premiums.

J. G - I

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

REQUIRED DISCLOSURES-SUMMARY

(\$ millions)

8.0% Interest

	2007		
	<u>Active</u>	<u>Retired</u>	<u>Total</u>
A. Expected Post-Retirement Benefit Obligation	\$117.21	\$192.17	\$309.38
B. Actuarial Accrued Liability	\$49.09	\$192.17	\$241.26
C. Plan Assets			\$0.00
D. Unfunded Actuarial Accrued Liability			\$241.26
E. Service Cost (Normal Cost)	\$4.11	\$0.00	\$4.11
F. Amortization of unfunded accrued liability	\$4.04	\$15.81	\$19.85
G. Annual Required Contribution (ARC)	\$8.15	\$15.81	\$23.96
H. Unrecognized Net Transition Obligation	\$45.05	\$176.36	\$221.41
I. Expected Benefit (Premium) Payments	n/a	\$12.19	\$12.19
J. Increase in Annual Cost to Fund the Plan			\$11.77

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A-B. Exhibit 2.2

C. Since plan is not funded, current assets = 0.

D. B - C

E-H. Exhibit 2.2

I. These are the City's share of the annual retiree premiums.

J. G - I



**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

Exhibit 2.1

REQUIRED DISCLOSURES-DETAIL

(\$ millions)

4.0% Interest

	Active Employees			Retirees			Total
	<u>General</u> (1)	<u>Uniformed</u> (2)	<u>Total</u> (3)=(1)+(2)	<u>Pre-Medicare</u> (4)	<u>Age 65+ Not on MC</u> (5)	<u>Medicare</u> (6)	<u>Total</u> (7)=(3)+(4)+(5)+(6)
A. Number of Members Generating a Liability (Medical)	2,106	297	2,403	478	171	1,806	4,858
B. Expected Post Retirement Benefit Obligation							
Medical/Rx/Vision	\$212.69	\$85.00	\$297.69	\$121.68	\$70.27	\$83.12	\$572.76
Dental	\$0.00	\$0.00	\$0.00	\$0.00	Incl in PMR	Incl in PMR	\$0.00
Life	\$0.16	Incl in Gen	\$0.16	\$2.28	Incl in PMR	Incl in PMR	\$2.45
Total	\$212.85	\$85.00	\$297.85	\$123.96	\$70.27	\$83.12	\$575.20
C. Actuarial Accrued Liability	\$71.65	\$43.73	\$115.38	\$123.96	\$70.27	\$83.12	\$392.73
D. Service Cost (Normal Cost)	\$7.10	\$3.40	\$10.50	\$0.00	\$0.00	\$0.00	\$10.50
E. Amortization Factor	17.98	17.98	17.98	17.98	17.98	17.98	17.98
F. Amortization of Actuarial Accrued Liability	\$3.98	\$2.43	\$6.41	\$6.89	\$3.91	\$4.62	\$21.83
G. Annual Required Contribution	\$11.08	\$5.83	\$16.91	\$6.89	\$3.91	\$4.62	\$32.33
H. Unamortized Portion of Actuarial Accrued Liability	\$67.67	\$41.30	\$108.97	\$117.07	\$66.36	\$78.50	\$370.90

A. Exhibit 12

B. Exhibits 4 and 5. Dental EPBO = \$0 because there is only 1 retiree dental plan and retirees pay the full cost.

C. For retired lives AAL = EPBO. For active lives AAL = EPBO x C from Exhibit 3

D. For retired lives Service Cost = 0. For active lives Service Cost = EPBO X D from Exhibit 3

E. Amortization factor = present value at 4% interest of a 30-year annuity due

F. C/E

G. D + F

H. C - F

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

Exhibit 2.2

REQUIRED DISCLOSURES-DETAIL

(\$ millions)

8.0% Interest

	Active Employees			Retirees			Total
	General	Uniformed	Total	Pre-Medicare	Age 65+ Not on MC	Medicare	Total
	(1)	(2)	(3)=(1)+(2)	(4)	(5)	(6)	(7)=(3)+(4)+(5)+(6)
A. Number of Members Generating a Liability (Medical)	2,106	297	2,403	478	171	1,806	4,858
B. Expected Post Retirement Benefit Obligation							
Medical/Rx/Vision	\$86.03	\$31.14	\$117.17	\$78.30	\$49.51	\$62.59	\$307.57
Dental	\$0.00	\$0.00	\$0.00	\$0.00	Incl in PMR	Incl in PMR	\$0.00
Life	\$0.04	Incl in Gen	\$0.04	\$1.77	Incl in PMR	Incl in PMR	\$1.82
Total	\$86.07	\$31.14	\$117.21	\$80.07	\$49.51	\$62.59	\$309.38
C. Actuarial Accrued Liability	\$29.91	\$19.18	\$49.09	\$80.07	\$49.51	\$62.59	\$241.26
D. Service Cost (Normal Cost)	\$2.87	\$1.25	\$4.11	\$0.00	\$0.00	\$0.00	\$4.11
E. Amortization Factor	12.16	12.16	12.16	12.16	12.16	12.16	12.16
F. Amortization of Actuarial Accrued Liability	\$2.46	\$1.58	\$4.04	\$6.59	\$4.07	\$5.15	\$19.85
G. Annual Required Contribution	\$5.33	\$2.83	\$8.15	\$6.59	\$4.07	\$5.15	\$23.96
H. Unamortized Portion of Actuarial Accrued Liability	\$27.45	\$17.60	\$45.05	\$73.48	\$45.44	\$57.44	\$221.41

A. Exhibit 12

B. Exhibits 4 and 5. Dental EPBO = \$0 because there is only 1 retiree dental plan and retirees pay the full cost.

C. For retired lives AAL = EPBO. For active lives AAL = EPBO x C from Exhibit 3

D. For retired lives Service Cost = 0. For active lives Service Cost = EPBO X D from Exhibit 3

E. Amortization factor = present value at 8% interest of a 30-year annuity due

F. C/E

G. D + F

H. C - F

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

ACTIVE EMPLOYEE ACCRUED BENEFITS

4.0% interest

	Active Employees	
	<u>General</u> (1)	<u>Uniformed Employees</u> (2)
A. Projected Service at Retirement = Attribution Period	30	25
B. Weighted Average Service to Date	10.1	12.9
C. Weighted Average Percent of Retirement Benefits Accrued to Date	33.7%	51.4%
D. Percent of Retirement Benefits Accrued in Fiscal Year 2007	3.3%	4.0%

- 
- A. Based on the provisions of the retirement plan.  
 B. Calculated from the census data  
 C. B/A  
 D. Calculated from the census data

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

ACTIVE EMPLOYEE ACCRUED BENEFITS

8.0% Interest

	Active Employees	
	<u>General</u> (1)	<u>Uniformed Employees</u> (2)
A. Projected Service at Retirement = Attribution Period	30	25
B. Weighted Average Service to Date	10.4	15.4
C. Weighted Average Percent of Retirement Benefits Accrued to Date	34.7%	61.6%
D. Percent of Retirement Benefits Accrued in Fiscal Year 2007	3.3%	4.0%

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A. Based on the provisions of the retirement plan.

B. Calculated from the census data

C. B/A

D. Based on projected 30 years' total service for general and 25 years' total service for uniformed.

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

EXPECTED POST-RETIREMENT BENEFIT OBLIGATION - LIFE INSURANCE

4.0% interest

	<u>Active</u> (1)	<u>Retired</u> (2)	<u>Total</u> (3)=(1)+(2)
A. Number of Contracts	964	1,107	2,071
B. Assumed Retirement Age	63	74	
C. Average Benefit per Insured at Retirement	5,000	5,000	
D. Net Single Premium per \$1,000	470.71	634.16	
E. Discount Factor for Actives to Assumed Retirement Age	0.26	1.00	
F. Percent Electing Life Insurance at Retirement	43.3%	100.0%	100.0%
G. Percent of Actual Cost Paid by Town	65.1%	65.1%	65.1%
H. Expenses	0.0%	0.0%	0.0%
I. Present Value of Future Subsidy = EPBO (\$ millions)	0.165	2.285	2.45
J. EPBO Per Contract	171	2,064	1,183

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A Exhibit 12

B Exhibit 6

C Exhibit 9

D For actives, this is the net single premium at the assumed retirement age.  
 For retirees, this is the net single premium at the current average age.

E Based on avg current age, expected retirement age, 4% interest and assumed mortality and turnover.

F For actives, Exhibit 12

G Exhibit 6

H Expenses are 0% because the assumed interest rate is net of expenses.

I  $A \times C \times D \times E \times F \times G \times (1+H)/1000$

J. 1/A

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

EXPECTED POST-RETIREMENT BENEFIT OBLIGATION - LIFE INSURANCE  
 8.0% Interest

	<u>Active</u> (1)	<u>Retired</u> (2)	<u>Total</u> (3)=(1)+(2)
A. Number of Contracts	964	1,107	2,071
B. Assumed Retirement Age	63	74	
C. Average Benefit per Insured at Retirement	5,000	5,000	
D. Net Single Premium per \$1,000	257.98	437.89	
E. Discount Factor for Actives to Assumed Retirement Age	0.11	1.00	
F. Percent Electing Life Insurance at Retirement	43.3%	100.0%	100.0%
G. Percent of Actual Cost Paid by Town	73.2%	73.2%	73.2%
H. Expenses	0.0%	0.0%	0.0%
I. Present Value of Future Subsidy = EPBO (\$ millions)	0.043	1.774	1.82
J. EPBO Per Contract	44	1,602	877

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- A Exhibit 12  
 B Exhibit 6  
 C Exhibit 9  
 D For actives, this is the net single premium at the assumed retirement age.  
 For retirees, this is the net single premium at the current average age.  
 E Based on avg current age, expected retirement age, 8% interest and assumed mortality and turnover.  
 F For actives, Exhibit 12  
 G Exhibit 6  
 H Expenses are 0% because the assumed interest rate is net of expenses.  
 I  $A \times C \times D \times E \times F \times G \times (1+H)/1000$   
 J  $1/A$

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

EXPECTED POST-RETIREMENT BENEFIT OBLIGATION - MEDICAL, Rx AND VISION  
 4.0% interest

	Active Employees		Retirees			Total (6)
	(1)	(2)	(3)	(4)	(5)	
	<u>General</u>	<u>Uniformed</u>	<u>Pre-Medicare</u>	<u>Age 65+ Not on MC</u>	<u>Medicare</u>	
A. Number of Contracts	2,106	297	478	171	1,806	4,858
B. Annual Subsidy per Contract	n/a	n/a	\$15,422.80	\$26,889.63	\$4,136.17	
C. PV of Future Subsidies (\$millions) for All Employees	\$212.69	\$85.00	\$121.68	\$70.27	\$83.12	\$572.75
D. Percent Expected to Elect Medical at Retirement	100%	100%	100%	100%	100%	
E. Expenses	0%	0%	0%	0%	0%	0%
F. Expected Post-Retirement Benefit Obligation (\$millions)	\$212.69	\$85.00	\$121.68	\$70.27	\$83.12	\$572.76
G. Expected Post-Retirement Benefit Obligation per Contract	\$100,992	\$286,195	\$254,561	\$410,936	\$46,024	\$117,900

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- A. Exhibit 12.  
 B. Exhibit 7  
 C. Calculated from B and the age and sex of each contractholder.  
 D. Calculation only considered participants who actually elected medical.  
 E. Expenses are 0% because the assumed interest rate is net of expenses.  
 F.  $C \times D \times (1 + E)$   
 G. F/A

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

EXPECTED POST-RETIREMENT BENEFIT OBLIGATION - MEDICAL, Rx AND VISION  
 8.0% Interest

	Active Employees		Retirees			Total (6)
	(1)	(2)	(3)	(4)	(5)	
	<u>General</u>	<u>Uniformed</u>	<u>Pre-Medicare</u>	<u>Age 65+ Not on MC</u>	<u>Medicare</u>	
A. Number of Contracts	2,106	297	478	171	1,806	4,858
B. Annual Subsidy per Contract	n/a	n/a	\$15,422.80	\$26,889.63	\$4,136.17	
C. PV of Future Subsidies (\$millions) for All Employees	\$86.03	\$31.14	\$78.30	\$49.51	\$62.59	\$307.56
D. Percent Expected to Elect Medical at Retirement	100%	100%	100%	100%	100%	
E. Expenses	0%	0%	0%	0%	0%	0%
F. Expected Post-Retirement Benefit Obligation (\$millions)	\$86.03	\$31.14	\$78.30	\$49.51	\$62.59	\$307.57
G. Expected Post-Retirement Benefit Obligation per Contract	\$40,850	\$104,848	\$163,808	\$289,532	\$34,657	\$63,312

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- A. Exhibit 12.  
 B. Exhibit 7  
 C. Calculated from B and the age and sex of each contractholder.  
 D. Calculation only considered participants who actually elected medical.  
 E. Expenses are 0% because the assumed interest rate is net of expenses.  
 F.  $C \times D \times (1 + E)$   
 G. F/A



**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

CURRENT ANNUAL SUBSIDY - LIFE INSURANCE

4.0% interest

	2007		
	<u>Active</u>	<u>Retired</u>	<u>Total</u>
	(1)	(2)	(3)
A. Current Average Age of Group	46	74	61
B. Net Single Premium per \$1,000 of Life Insurance	n/a	634.16	442.77
C. % of Total Cost Represented by Full Premium Retirees Pay		69.8%	
D. % of Full Premium Retirees Pay		50.0%	
E. % of Total Cost Retirees Actually Pay Including Implicit Subsidy		34.9%	
F. % of Total Cost Paid by City		65.1%	

- 
- A. Exhibit 12  
 B. Calculated  
 C. I(3)/H(3)  
 D. Exhibit 8  
 E. C X D  
 F. 1 - E

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

CURRENT ANNUAL SUBSIDY - LIFE INSURANCE

8.0% Interest

	2007		
	<u>Active</u>	<u>Retired</u>	<u>Total</u>
	(1)	(2)	(3)
A. Current Average Age of Group	46	74	61
B. Net Single Premium per \$1,000 of Life Insurance	n/a	437.89	234.82
C. % of Total Cost Represented by Full Premium Retirees Pay		53.6%	
D. % of Full Premium Retirees Pay		50.0%	
E. % of Total Cost Retirees Actually Pay Including Implicit Subsidy		26.8%	
F. % of Total Cost Paid by City		73.2%	

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- A. Exhibit 12  
 B. Calculated  
 C. I(3)/H(3)  
 D. Exhibit 8  
 E. C X D  
 F. 1 - E

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

CURRENT ANNUAL SUBSIDY - MEDICAL, Rx AND VISION

	<u>Actives</u> (1)	<u>Pre-Med. Retirees</u> (2)	<u>Med. Retirees</u> (3)	<u>Retirees 65 and Over Not on M.C.</u> (4)
A. Blended Annual Premium per Contract	n/a	\$11,590	\$5,170	\$11,590
B. Actual Annual Cost per Contract	n/a	\$17,741	\$5,170	\$29,208
C. Annual Member Contributions per Contract	n/a	\$2,318	\$1,034	\$2,318
D. Current Annual Subsidy per Contract	n/a	\$15,423	\$4,136	\$26,890

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- A. Exhibit 8  
 B. 153.07% of A for pre-M/C retirees < 65, 252% for pre-M/C retirees > 65 and 100.0% of A for M/C retirees.  
 C. Exhibit 8  
 D. B - C

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

MEMBER CONTRIBUTIONS

	Medical, Rx, Vision (1)	Life Insurance (2)
<u>Retirees Not on Medicare</u>		
Blended Monthly Premium per Contract	\$ 965.86	\$9.45
Blended Annual Premium per Contract	\$11,590	\$113.40
Percent Paid By Members	20.0%	50.0%
Current Annual Amount Members Pay	\$2,318.07	\$56.64
<u>Medicare Retirees</u>		
Blended Monthly Premium per Contract	\$ 356.05	\$9.45
Medicare Part B Monthly Premium Paid by City	\$74.80	n/a
Blended Stop Loss Premium per Contract	n/a	n/a
Total Blended Monthly Premium per Contract	\$ 430.85	\$9.45
Blended Annual Premium	\$5,170	\$113.40
% Contractholders Pay	20.0%	50.0%
Current Annual Amount Members Pay	\$1,034	\$56.64

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Medical monthly costs calculated from census and premium rates. Life monthly cost from Exhibit 9.  
 Percent paid by members from Exhibit 10  
 City reimburses 80% of Medicare Part B premium.

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

Exhibit 9

LIFE INSURANCE IN FORCE

	<u>Active</u> (1)	<u>Retired</u> (2)	<u>Total</u> (3)
A. Number of Insureds	964	1,107	2,071
B. Average Benefit per Insured		\$5,000	
C. Current Amount of Insurance in Force (\$000)		\$5,535	
D. Total Monthly Premium per Contract		\$9.45	
E. Average Monthly Premium per Insured		\$4.72	
F. Average Annual Premium per Insured		\$56.64	

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- A. Exhibit 12  
B. Exhibit 11.  
C. A x B  
D. Exhibit 10  
E. B x D/1000  
F. 12 x E

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

Exhibit 10

FUNDING INFORMATION

<u>Actives</u>		
Medical	All plans designed for actives are self-insured. Employees pay 20% of blended cost of actives and retirees not on Medicare. Pooling protection is included in the specified premium rates.	
Drugs	Included with Medical	
Dental	Actives pay <100% of the cost of the coverage.	
Life Insurance	Fully insured - current insurer is Kanawha Insurance Company. Current 100% monthly premium rate is \$9.45 per month for \$5,000 of coverage. Members pay 50% of the total premium - so they pay \$4.72 per month.	
<u>Retirees Not on Medicare</u>		
Medical	Same as for Actives	
Drugs	Same as for Actives	
Dental	For the only plan available, retirees have to pay 100% of the cost of the coverage.	
Life Insurance	Same as for Actives	
<u>Retirees on Medicare</u>		
Medical	Plans designed for these participants are fully insured. When eligible for Medicare, retiree is transferred to Medicare Supplement plan. All plans are fully insured.	
Drugs and Vision	Since plan is fully insured, stop loss coverage is included in the insurance rates.	
Drugs	Same as for Actives	
Dental	For the only plan available, retirees have to pay 100% of the cost of the coverage.	
Life Insurance	Same as for Actives	

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Data provided by the City of Newton

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

**BENEFIT INFORMATION**

<u>Actives</u>		
Medical		Choice of Harvard Pilgrim, Tufts EPO and Tufts POS Rates depend on choice of coverage Spouse and family coverage available.
Drugs and Vision		Included if Medical Elected (Drug Copays per Medical Plan Elected Apply)
Dental		Several plans are available.
Life Insurance		All life insurance benefits are a flat \$5,000 with no reduction at retirement.
<u>Retirees Not on Medicare</u>		
Medical		Same Choices as for Actives
Drugs and Vision		Same Choices as for Actives
Dental		Only 1 plan is available.
Life Insurance		Same Choices as for Actives
<u>Retirees on Medicare</u>		
Medical		Most participants have elected the Tufts Medicare Complement Plan (Medicare Supplement). A minority have elected Tufts Medicare Preferred, First Seniority Freedom and HMO Blue. Payment of Medicare Part B premiums are the responsibility of the retirees, however the City reimburses 80%. Survivors from family contracts can continue coverage until they die. They may also re-enter the plan after initially declining coverage.
Drugs and Vision		Same Choices as for Actives Drug Plan Not Eliminated When Medicare Part D Took Effect
Dental		Only 1 plan is available.
Life Insurance		Flat \$5,000

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Data provided by the City of Newton

**CITY OF NEWTON**  
**GASB 45 DETERMINATION**

CENSUS INFORMATION

	<u>General</u> (1)	<u>Uniformed</u> (2)	<u>Elected No Coverage</u> (3)	<u>Total</u> (4)
<u>Actives - Medical</u>				
Number of Contracts	2,106	297	73	2,476
Average Age	45	42		44
Average Service Years	10	14		
<u>Pre-Medicare Retirees - Medical/Under 65</u>				
Number of Contracts	478	Incl in Gen	Incl Above	478
Average Age	60			
<u>Pre-Medicare Retirees - Medical/65 and Over</u>				
Number of Contracts	171	Incl in Gen	Invl Above	171
Average Age	74			
<u>Medicare Retirees - Medical</u>				
Number of Contracts	1,806	Incl in Gen	Invl Above	1,806
Average Age	77			
<u>Life Insurance</u>				
		<u>Average Age</u>		
Number of Contracts - Actives	964	46	1,512	2,476
Number of Contracts - Retirees	1,107	74	1,201	2,308
Number Electing Life Insurance - Total	2,071	61	2,713	4,784
Percent of New Retirees Electing Medical				100%
Percent Under-65 Retirees Keeping Medical at Age 65				100%
Percent of Retirees Electing Life Insurance				43%

Data provided by the City of Newton

The City has noted that the declination rate for retiree medical insurance is negligible.